## II. Remarks/Arguments

## A. Discussion of the Amendment

Claims 1 to 4, 6, 8, 18, 19 and 20 remain in this application. Claim 18 has been amended to correct an obvious typographical error and new Claims 20 to 36 have been added to claim certain preferred aspects of the invention. Claim 1 has been amended to make it clearer that the web comprises discontinuous regions in which the web has been penetrated with polymer.

There is clear antecedent basis for this Amendment in the originally filed application. See for example original Claims 1 to 17. This Amendment does not introduce new matter or raise new issues. In fact, this Amendment, in part, adopts a suggestion made by Examiner.

## II. Discussion of the Objection

Examiner objected to Claim 18 because of a certain typographical error and proposed certain amendments to the claim to obviate all basis for the objection. By this Amendment, Applicants have amended Claim 18 as suggested by Examiner. Claim 18 is now in condition for allowance and a speedy allowance is respectfully requested.

## III. Rejection of Claims under 35 USC § 102(b)

Claims 1-4, 6 and 8 are rejected under 35 USC § 102(b) as being anticipated by US 5,209,965 (<u>"Caldwell"</u>). This rejection is respectfully traversed.

The present invention is directed to a crack resistant paper or board. The paper or board is comprised of a cellulose fiber web which is impregnated with a

polymer material in geometrical formations. The crack resistant properties of the paper or board of this invention are clearly shown in the examples.

In evaluation an invention for anticipation the invention must be considered as a whole. Each limitation of the claim is material and essential, and limitations cannot be ignored in assessing anticipation. See <a href="In re Stence">In re Stence</a>, 828 F. 2d 751, 4 USPQ 1071, (Fed. Cir. 1987), and <a href="Diversitech Corp.">Diversitech Corp.</a> v. <a href="Century Steps">Century Steps</a></a>
Inc., 892 F 2d 1562, 7 USPQ 2D 1315 (Fed Cir. 1988). Rejections under 35
U.S.C. §. 102 are technical in nature and require that each cited reference describes the invention as a whole. The burden is on the Patent Office to show anticipation whether by inherency or otherwise. Anticipation requires that every limitation of the claim, arranged as in the claim, is identically shown by a single reference. See <a href="Diversitech Corp.">Diversitech Corp.</a> v. <a href="Century Steps">Century Steps</a>, 850 F, 2d 275, 7 USPQ 2d 1315 (Fed. Co. 1988) and <a href="Carrella v. Starlight Arachery and Proline">Carrella v. Starlight Arachery and Proline</a>, 904 F. 2d 135, 231 USPQ 644 (Fed, Cir. 1986). The Patent Office has clearly not carried its burden of proof.

<u>Caldwell</u> is directed to a flexible porous web which contains an internal coating of a silicone polymer composition (See Col 3, lines 65-68 of <u>Caldwell</u>). The webs are water proof or highly water repellant. (See lines 14 to 16 of the Abstract and Col 4, line 27 of <u>Caldwell</u>). As used in <u>Caldwell</u>, "internally coated" refers to the forming of a film or layer coated within a porous solid in a specified region such as a plain or region extending interiorly through the web in parallel relationship to a surface of the web. (See Col 9, lines 6 to 13 of <u>Caldwell</u>). The web is composed of fibers which are "<u>long</u>, pliable, cohesive, natural or manmade (synthetic) thread like objects, such as a nano filament, staple, filament or the like." (See Col 7, lines 8 to 11 of <u>Caldwell</u>).

This invention is not identically described in <u>Caldwell</u> to support a rejection under 35 USC § 102 for anticipation. First, <u>Caldwell</u> does not disclose a web of cellulosic fibers having discontinuous regions formed by impregnation of the web with a polymer. There is absolutely no disclosure or teaching in <u>Caldwell</u> of a

web in which polymer is impregnated in a web to form discontinuous geometric formations. Indeed, if the web of <u>Caldwell</u> had this construction it would not be water proof or water resistant which is an objective of <u>Caldwell</u> because water could freely pass through the un impregnated regions. In fact, <u>Caldwell</u> teaches and suggests just the opposite. For example, <u>Caldwell</u> discloses a web in which the silicone is impregnated in a <u>continuous polymeric phase in which fibers are dispersed and the polymer fills of the spaces or void areas between the fibers (See Col 48, lines 20 to 28 of <u>Caldwell</u>).</u>

In support of the rejection, Examiner states that:

"Figure 36 shows circular formations."

These alleged circular formations are clearly not the discontinuous geometrical polymer impregnated formations of the present invention. <u>Caldwell</u>, at Col 48, lines 20 to 28, states that Fig 3(b) is photo micrograph of cross-sections of a fiber bundle. What Examiner considers to be circular formations are apparently cross-sections of the trilobal fibers used to form the web. The dark spaces between the trilobal fibers appear to be the polymer impregnant which is clearly not discontinuous but rather is continuous in that, as disclosed at Col 48, lines 24 to 28 of <u>Caldwell</u>, the

"interstices or void areas between filaments in the region of the internal coating are mostly filled or plugged by such impregnated.... and because of the impregnant barrier [the web] is either water resistant or waterproof."

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Applicants respectfully submit that this rejection is clearly appropriate and respectfully request that it be withdrawn. In view of the foregoing, Applicants respectfully request reconsideration and an allowance of all pending claims.

Respectfully Submitted, WADOOD HAMAD, ET. AL.

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